## What Is Claimed Is:

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1. A shirred seamless, tubular concertina casing suitable for foodstuffs comprising: an inner hollow cavity,

two ends, one of which is tied off, wherein the tied-off end of the concertina is turned inward into the inner hollow cavity, and

an outer surface provided with a coating or impregnation comprising a food additive.

- 2. A shirred concertina casing in accordance with Claim 1, wherein the turned-in part of the tied-off end of the casing extends over approximately an entire length of the concertina.
- 3. A shirred concertina casing in accordance with Claim 1, wherein the coating or impregnation that is provided on the outer surface further comprises at least one binding agent.
- 4. A shirred concertina casing in accordance with Claim 1, wherein the food additive comprises a natural liquid smoke, a neutral liquid smoke, or an alkali liquid smoke and/or powdered smoke.
- 5. A shirred concertina casing in accordance with Claim 1, wherein the coating comprises a cross-linking agent.
- 6. A shirred concertina casing in accordance with Claim 1, wherein the coating comprises a material that is capable of reducing the water solubility of the coating.

- 7. A shirred concertina casing in accordance with Claim 1, characterized in that the coating comprises a polyvinyl pyrrolidone and/or a copolymer containing vinylpyrrolidone units.
- 8. A shirred concertina casing in accordance with Claim 1, wherein a fill ring is positioned inside the turned-in portion of the casing.
- 9. A shirred concertina casing in accordance with Claim 1, wherein the concertina casing is enclosed in outer packaging.
- 10. A shirred concertina casing in accordance with Claim 1, wherein the concertina casing further comprises fiber-reinforced, regenerated cellulose.
- 11. A shirred concertina casing in accordance with Claim 1, wherein the concertina casing is based upon thermoplastic starches or mixtures containing thermoplastic starches and other natural or synthetic polymers.
- 12. A shirred concertina casing in accordance with Claim 1, wherein the concertina casing is single- or multilayer, and is based upon one or more synthetic materials.
- 13. A shirred concertina casing in accordance with Claim 1, wherein said casing is designed to be soak-free.
- 14. A shirred concertina casing in accordance with Claim 3, wherein the binding agent comprises a polysaccharide or a derivative thereof, a protein or a derivative thereof, or a mixture of a polysaccharide and a protein.
- 15. A shirred concertina casing in accordance with Claim 5, wherein the cross-linking agent comprises a long-chain dienal, tannin, caramel, and/or linseed oil.

- 16. A shirred concertina casing in accordance with Claim 12, wherein said synthetic materials comprise polyamides and/or polyolefins.
- 17. A food product comprising a casing according to Claim 1.
- 18. A concertina casing of Claim 1 that has been filled with an edible material.
- 19. A method for producing an edible material comprising: placing a shirred concertina casing of Claim 1 on a filling apparatus, and filling said casing with edible material.